

## IN THE CLAIMS

1. through 4. (Canceled)

5. (Currently Amended) ~~The method according to claim 2, further comprising steps of:~~  
A method for setting up an up-stream communication session in a basic service set (BSS) in a wireless network, the communication session having a defined Quality of Service (QoS), the method comprising:

detecting a first Path message and a first Resv message (Path/Resv message) of a RSVP protocol at a designated subnet bandwidth manager (DSBM) in a station having a point coordinator (PC), the first Resv message originating from a RSVP agent of a host outside the BSS, and requesting for setting up an up-stream session between a source non-PC station in the BSS and the PC station;

extracting at the DSBM a QoS parameter set and a classifier from the first Path/Resv message for the session;

determining at the DSBM whether to admit the up-stream session to the network based on the QoS parameter set defining the session and a channel status report on a medium access control (MAC) sublayer of the BSS; and

when the up-stream session is admitted, setting up by a QoS management entity (QME) of the PC station a virtual up-stream (VUS) between the source non-PC station and the PC station for transporting the up-stream session traffic;

wherein the DSBM is part of the QME in the PC station;

the method further comprising:

assigning by the QME a virtual stream identifier (VSID) to the VUS; and

instructing by the QME a frame scheduling entity (FSE) to create an entry corresponding to the VDS in a frame scheduling table of the FSE, the FSE being logically located in the MAC sublayer of the PC station, the entry in the frame scheduling table including the VSID and the QoS parameter set associated with the up-stream session;

the method further comprising:

detecting a second Path/Resv message at the DSBM, the second Path/Resv message originating outside the DSBM and requesting a change of at least one QoS parameter value associated with the up-stream session;

extracting at the DSBM the changed QoS parameter set and the classifier from the second Path/Resv message for the session;

finding at the QME of the PC station the VSID that is associated with the extracted classifier;

determining at the QME of the PC station whether to grant the request for change based on the changed QoS parameter set and the channel status report;

when the request is not granted, operating the up-stream session according to the QoS parameter set contained in the frame scheduling table in the PC station for the VUS; and

when the request is granted, instructing by the QME of the PC station the FSE of the PC-station to update the entry in the frame scheduling table corresponding to the VUS by changing at least one QoS parameter value associated with the VUS based on the requested change.

6. (Original) The method according to claim 5, wherein when the request is granted, further comprising a step of sending a management frame from the PC station to the source non-PC station, the management frame including information relating to a change of at least one QoS parameter value associated with the up-stream session defined by the VSID.

7. (Original) The method according to claim 6, further comprising steps of:

receiving the management frame by the source non-PC station;

passing the information contained in the management frame to the QME of the non-PC station; and

instructing by the QME of the non-PC station the FSE of the non-PC station to update the entry corresponding to the VUS in the frame scheduling table of the FSE by changing at least one QoS parameter value associated with the VUS based on the information contained in the received management frame.

8. through 17. (Canceled)

18. (Currently Amended) ~~The PC station according to claim 15,~~ A point coordinator (PC) station in a basic service set (BSS) in a wireless network, the PC station comprising:

a designated subnet bandwidth manager (DSBM) detecting a first Path message and a first Resv message (Path/Resv message) of a RSVP protocol, the first Resv message originating from a RSVP agent of a host outside the BSS and requesting to set up an up-stream session between a source non-PC station in the BSS and the PC station, the DSBM extracting a Quality of Service (QoS) parameter set and a classifier from the first Path/Resv message for the session, and determining whether to admit the up-stream session to the network based on the QoS parameter set defining the session and a channel status report on a medium access control (MAC) sublayer of the BSS; and

a QoS management entity (QME), responsive to the an admitted up-stream session, by setting up a virtual up-stream (VUS) between the source non-PC station and the PC station for transporting the up-stream session traffic; the DSBM being part of the QME in the PC station;

wherein the QME assigns a virtual stream identifier (VSID) to the VUS and instructs a frame scheduling entity (F SE) to create an entry corresponding to the VDS in a frame scheduling table of the FSE, the FSE being logically located in the MAC sublayer of the PC station, the entry in the frame scheduling table including the VSID and the QoS parameter set associated with the up-stream session,

wherein the DSBM detects a second Path/Resv message, the second Path/Resv message originating outside the DSBM and requesting a change of at least one QoS parameter value associated with the up-stream session, the DSBM extracting the changed QoS parameter set and the classifier from the second Path/Resv message for the session,

wherein the QME of the PC station finds the VSID that is associated with the extracted classifier and determines whether to grant the request for change based on the changed QoS parameter set and the channel status report,

wherein when the request is not granted, the up-stream session is operated according to the QoS parameter set contained in the frame scheduling table in the PC station for the VUS, and

wherein when the request is granted, QME of the PC station instructs the FSE of the PC-station to update the entry in the frame scheduling table corresponding to the VUS by changing at least one QoS parameter value associated with the VUS based on the requested change.

19. (Original) The PC station according to claim 18, wherein when the request is granted, the QME of the PC station sends a management frame from the PC station to the source non-PC station, the management frame including information relating to a change of at least one QoS parameter value associated with the up-stream session defined by the VSID.

20. (Original) The PC station according to claim 19, wherein the source non-PC station includes a local QME, a local FCE that is logically located in the LLC sublayer of the source non-PC station and a local FSE that is logically located in the MAC sublayer of the source non-PC station, the source non-PC station receiving the management frame and passing the information contained in the management frame to the local QME, and

wherein the local QME instructs the local FSE to update the entry corresponding to the VUS in the frame scheduling table of the local FCE by changing at least one QoS parameter value associated with the VUS based on the information contained in the received management frame.

21. through 26. (Canceled)